VAR G1=2/3/4 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RSPEC 4 15 12 NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

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FILE 'REGISTRY' ENTERED AT 15:20:06 ON 19 DEC 2006

L1 STRUC L2 31 S L1 L3 496 S L1 FUL

FILE 'CAPLUS' ENTERED AT 15:23:03 ON 19 DEC 2006 L4 12 S L3

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http://www.cas.org/infopolicy.html

=> d bib abs 1-12

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L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 2006:1093266 CAPLUS

DN 145:432223

TI Method of treating schizophrenia prodrome

IN Woods, Scott W.

PA Yale University, USA

SO PCT Int. Appl., 64pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.					KIND DATE				APPLICATION NO.						DATE			
ΡI	WO 2006110724				A2	-	2006	20061019		WO 2006-US13444						20060411			
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			IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	
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PRAI US 2005-670600P P 20050411

OS MARPAT 145:432223

AB The present invention relates to a method of treating schizophrenia prodrome in human subjects using a NMDA glycine site agonist, a glycine transporter-1 inhibitor or mixts. thereof, optionally in combination with a pharmaceutically acceptable additive, carrier or excipient.

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L4 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 2006:15633 CAPLUS

DN 144:184524

CS Sanofi-Aventis, Montpellier, 34184, Fr.

TI 2-Chloro-N-[(S)-phenyl [(2S)-piperidin-2-yl] methyl]-3-trifluoromethyl benzamide, monohydrochloride, an inhibitor of the glycine transporter type 1, increases evoked-dopamine release in the rat nucleus accumbens in vivo via an enhanced glutamatergic neurotransmission

AU Leonetti, M.; Desvignes, C.; Bougault, I.; Souilhac, J.; Oury-Donat, F.; Steinberg, R.

- SO Neuroscience (San Diego, CA, United States) (2006), 137(2), 555-564 CODEN: NRSCDN; ISSN: 0306-4522
- PB Elsevier
- DT Journal
- LA English
- 2-Chloro-N-[(S)-Ph [(2S)-piperidin-2-yl] methyl]-3-trifluoromethyl AB benzamide, monohydrochloride (SSR504734) is a potent and selective inhibitor of the glycine transporter type 1, which increases central N-methyl-D aspartate glutamatergic tone. Since glutamate has been shown to play a role in the regulation of the dopaminergic system in dopamine-related disorders, such as schizophrenia, the authors investigated the possibility that SSR504734 may modify the basolateral amygdala-elicited stimulation of dopamine release in the nucleus accumbens via an augmentation of glutamate receptor-mediated neurotransmission. First, the authors' data confirmed that SSR504734 is an inhibitor of GlytT1. In the nucleus accumbens of anesthetized rat, SSR504734 (10 mg/kg, i.p.) induced an increase of extracellular levels of glycine as measured by microdialysis coupled with capillary electrophoresis with laser-induced fluorescence detection. Second, the data demonstrated that SSR504734 (10 mg/kg, i.p.) enhanced the facilitatory influence of glutamatergic afferents on dopamine neurotransmission in the nucleus accumbens. Using an electrochem. technique, the authors measured dopamine release in the nucleus accumbens evoked by an elec. stimulation of the basolateral amygdala. SSR504734 facilitated dopamine release evoked by a 20 or a 40Hz frequency basolateral amygdala stimulation. This facilitatory effect was dependent on glutamatergic tone, as intra-nucleus accumbens application of 6-7-dinitroquinoxaline-2,3-dione (10-3 M) or -2-amino-5-phosphonopentanoic acid (10-3 M), α-amino-3-hydroxy-5methylisoxazole-4-propionic acid and N-methyl-D aspartate receptors antagonists, resp., inhibited dopamine release evoked by basolateral amygdala stimulation. Furthermore DL-2-amino-5-phosphonopentanoic acid co-administrated with SSR504734 hampered the dopamine-evoked release facilitation. These data underline the in vivo implication of the glycine uptake mechanism in the control of subcortical glutamate/dopamine interactions.

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2005:1116563 CAPLUS
- DN 144:184457
- TI Neurochemical, Electrophysiological and Pharmacological Profiles of the Selective Inhibitor of the Glycine Transporter-1 SSR504734, a Potential New Type of Antipsychotic
- AU Depoortere, Ronan; Dargazanli, Gihad; Estenne-Bouhtou, Genevieve; Coste, Annick; Lanneau, Christophe; Desvignes, Christophe; Poncelet, Martine; Heaulme, Michel; Santucci, Vincent; Decobert, Michel; Cudennec, Annie; Voltz, Carolle; Boulay, Denis; Terranova, Jean Paul; Stemmelin, Jeanne; Roger, Pierre; Marabout, Benoit; Sevrin, Mireille; Vige, Xavier; Biton, Bruno; Steinberg, Regis; Francon, Dominique; Alonso, Richard; Avenet, Patrick; Oury-Donat, Florence; Perrault, Ghislaine; Griebel, Guy; George, Pascal; Soubrie, Philippe; Scatton, Bernard
- CS CNS Department, Sanofi-Synthelabo Recherche, Bagneux, Fr.
- SO Neuropsychopharmacology (2005), 30(11), 1963-1985 CODEN: NEROEW; ISSN: 0893-133X
- PB Nature Publishing Group
- DT Journal
- LA English
- AB Noncompetitive N-methyl-D-aspartate (NMDA) blockers induce schizophrenic-like symptoms in humans, presumably by impairing glutamatergic transmission. Therefore, a compound potentiating this neurotransmission, by increasing extracellular levels of glycine (a

requisite co-agonist of glutamate), could possess antipsychotic activity. Blocking the glycine transporter-1 (GlyT1) should, by increasing extracellular glycine levels, potentiate glutamatergic neurotransmission. SSR504734, a selective and reversible inhibitor of human, rat, and mouse GlyT1 (IC50=18, 15, and 38 nM, resp.), blocked reversibly the ex vivo uptake of glycine (mouse cortical homogenates: ID50: 5 mg/kg i.p.), rapidly and for a long duration. In vivo, it increased (minimal efficacious dose (MED): 3 mg/kg i.p.) extracellular levels of glycine in the rat prefrontal cortex (PFC). This resulted in an enhanced glutamatergic neurotransmission, as SSR504734 potentiated NMDA-mediated excitatory postsynaptic currents (EPSCs) in rat hippocampal slices (minimal efficacious concentration (MEC): 0.5  $\mu M$ ) and intrastriatal glycine-induced rotations in mice (MED: 1 mg/kg i.p.). It normalized activity in rat models of hippocampal and PFC hypofunctioning (through activation of presynaptic CB1 receptors): it reversed the decrease in elec. evoked [3H]acetylcholine release in hippocampal slices (MEC: 10 nM) and the reduction of PFC neurons firing (MED: 0.3 mg/kg i.v.). SSR504734 prevented ketamine-induced metabolic activation in mice limbic areas and reversed MK-801-induced hyperactivity and increase in EEG spectral energy in mice and rats, resp. (MED: 10-30 mg/kg i.p.). In schizophrenia models, it normalized a spontaneous prepulse inhibition deficit in DBA/2 mice (MED: 15 mg/kg i.p.), and reversed hypersensitivity to locomotor effects of d-amphetamine and selective attention deficits (MED: 1-3 mg/kg i.p.) in adult rats treated neonatally with phencyclidine. Finally, it increased extracellular dopamine in rat PFC (MED: 10 mg/kg i.p.). The compound showed addnl. activity in depression/anxiety models, such as the chronic mild stress in mice (10 mg/kg i.p.), ultrasonic distress calls in rat pups separated from their mother (MED: 1 mg/kg s.c.), and the increased latency of paradoxical sleep in rats (MED: 30 mg/kg i.p.). In conclusion, SSR504734 is a potent and selective GlyT1 inhibitor, exhibiting activity in schizophrenia, anxiety and depression models. By targeting one of the primary causes of schizophrenia (hypoglutamatergy), it is expected to be efficacious not only against pos. but also neg. symptoms, cognitive deficits, and comorbid depression/anxiety states.

RE.CNT 86 THERE ARE 86 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L4 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 2005:345998 CAPLUS

DN 142:392296

TI Preparation of N-[phenyl(alkylpiperidin-2-yl)methyl]benzamides as specific inhibitors of glycine transporters glyt1 and/or glyt2

IN Dargazanli, Gihad; Estenne Bouhtou, Genevieve; Veronique, Corinne

PA Sanofi-Synthelabo, Fr.

SO Fr. Demande, 29 pp. CODEN: FRXXBL

DT Patent

LA French

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	WO	2005	0377	82		A2		2005	0428	1	WO 2	004-	FR26	42		. 20	0041	015
	WO	2005	0377	82		A3		2005	0707									
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PRAI FR 2003-12141
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                                20031017
     WO 2004-FR2642
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                                20041015
     MARPAT 142:392296
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- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- Title compds. I [wherein R1 = H, cycloalkyl, cycloalkylalkyl, alkenyl, AB alkynyl, (un)substituted alkyl, phenylalkyl; X = H, halo, CF3, alkyl, alkoxy; R2 = cyclo/cycloalkyl/alkyl; R3 = H, halo, CF3, cyclo/alkyl, alkoxy, Ph, NH2, Ph, CN, NH2 and derivs., etc.; their free bases, acid addition salts, hydrates and solvates] were prepared as specific inhibitors of glycine transporters glyt1 and/or glyt2. For example, threo-IIoHCl was prepared by acylation of cis-threo-(1,6-dimethylpiperidin-2yl)phenylmethanamine (preparation given) with 2-chloro-3-trifluoromethylbenzoic acid in CH2Cl2 in the presence of EDAP/DMAP at room temperature for 5 h, followed by acidulation of the free base (threo-II) with HCl in 2-propanol. I inhibited glycine transport via glytl and displayed an IC50 in the range of 0.001 to 10  $\mu M$  in vitro, and a ED50 of 0.1 to 5 mg/kgwhen administered orally or i.p. in an in vivo test of [14C]glycine uptake in a mouse cortical homogenate. I inhibited glycine transport via glyt2 and displayed an IC50 in the range of 0.001 to 10  $\mu M$  in vitro, and a ED50 of 1 to 20 mg/kg when administered orally or i.p. in an in vivo test of [14C]glycine uptake in a mouse spinal homogenate. I are used to treat a variety of central nervous system diseases and conditions (no data).

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 2004:589417 CAPLUS

DN 141:140320

TI A preparation of insecticidal piperidine and pyridine derivatives

IN Ding, Ping; Henrie, Robert H., II; Cohen, Daniel H.; Lyga, John W.; Rosen, David S.; Theodoridis, George; Zhang, Qun; Yeager, Walter H.; Donovan, Stephen F.; Zhang, Steven Shunxiang; Shulman, Inna; Yu, Seong Jae; Wang, Guozhi; Zhang, Y. Larry; Gopalsamy, Ariamala; Warkentin, Dennis L.; Rensner, Paul E.; Silverman, Ian R.; Cullen, Thomas G.

PA FMC Corporation, USA

SO PCT Int. Appl., 182 pp.

CODEN: PIXXD2

DT Patent

LA English

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GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
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     WO 2003-US38878
                                20031208
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     MARPAT 141:140320
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The invention relates to a preparation of insecticidal piperidine and pyridine derivs. of formula I [wherein: A is C or CH; B is substituted phenyl; C is 00-1; D is (CH2)0-3; E is a bridging group selected from (CR9R10) - (CR11R12)0-1, (CR9R10) - (CR11R12)0-10, C3H6, C(0), or C(S)NH, etc.; Rl is H, alkyl, alkoxyalkyl, or aryl; R2, R3, R4, R5, and R6 are independently selected from H, halogen, (halo/hydroxy)alkyl, alkylthio, CN, or NO2, etc.; R7 is (halo/hydroxy/alkoxy/dialkylamino)alkyl, sulfonatoalkyl, arylalkyl, or arylcarbonyl, etc.; R8 is H, (cyclo)alkyl, alkoxy, amino, morpholinyl, or indolyl, etc.; R9, R10, R11, and R12 are independently selected from H, alkyl, aryl, etc.]. Prepared compds. were evaluated for activity against tobacco budworm in a surface-treated diet test. For instance, piperidine derivative II (compound 101, insecticidal activity: 100% mortality, 100% growth inhibition) was prepared via elimination reaction of hydroxymethylpiperidine derivative III, N-benzylation of the obtained methylenepiperidine derivative IV by 4-nitrophenylmethyl bromide, subsequent reduction of the nitro-group, N-carboxylation of the obtained amine V, and N-oxidation (example 1).

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L4 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 2004:80190 CAPLUS

DN 140:128283

TI Preparation of N-[phenyl(piperidin-2-yl)methyl]benzamides as specific inhibitors of glycine transporters glyt1 and/or glyt2

IN Dachary, Emmanuelle; Dargazanli, Gihad; Estenne, Bouhtou Genevieve;
Marabout, Benoit; Rakotoarisoa, Nathalie; Roger, Pierre; Sevrin, Mireille

PA Sanofi-Synthelabo, Fr.

SO Fr. Demande, 48 pp. CODEN: FRXXBL

DT Patent

LA French

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	FR 2842805	A1	20040130	FR 2002-9589	20020729		

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WO 2004013100
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     AU 2003273474
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     MARPAT 140:128283
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Title compds. I [wherein R1 = H, cycloalkyl, cycloalkylalkyl, alkenyl, AB alkynyl, phenylalkyl, (un) substituted alkyl; X = H, halo, CF3, alkyl, alkoxy; R2 = H, halo, CF3, alkyl, alkoxy, methylenedioxy, NR4R5, (un) substituted phenyl; R4, R5 = independently H, alkyl; or NR4R5 = pyrrolidinyl, piperidinyl, morpholinyl, piperazinyl; R3 = SO2NH2 and derivs., S-alkyl, alkylsulfonyl, CO2H and derivs., CONH2 and derivs., acetyl, benzoyl, CN, alkyl, thiophenyl, benzothiophenyl, thianthrenyl, (un) substituted phenyl; as enantiomers (1R,2R) or (1S,2S) or three diastereomers, their pharmaceutical acceptable salts] were prepared as specific inhibitors of glycine transporters glyt1 and/or glyt2. For example, threo-IIoHCl was prepared by acylation of threo-(1methylpiperidin-2-yl)phenylmethanamine (preparation given) with 3-bromo-4-[[(cyclopropyl)(methyl)amino]sulfonyl]benzoic acid in CH2Cl2 in the presence of EDAP/HOBt at room temperature overnight, followed by acidulation

of the free base (threo-II) with HCl in 2-propanol. (1S,2S)-I (R2 = halo or CF3) and their threo racemates inhibited glycine transport via glyt1 and displayed an IC50 in the range of 0.001 to 10  $\mu$ M in vitro, and a ED50 of 0.1 to 5 mg/kg when administered orally or i.p. in an in vivo test of [14C]glycine uptake in a mouse cortical homogenate. (1R,2R)-I (R2 = halo or NR3R4 defined as above) and their threo racemates inhibited glycine transport via glyt2 and displayed an IC50 in the range of 0.001 to 10  $\mu$ M in vitro, and a ED50 of 1 to 20 mg/kg when administered orally or i.p. in an in vivo test of [14C]glycine uptake in a mouse spinal homogenate. I are used to treat a variety of central nervous system diseases and conditions (no data).

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L4 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 2004:80189 CAPLUS

DN 140:146004

TI Preparation of N-[phenyl(piperidin-2-yl)methyl]benzamides as specific inhibitors of glycine transporters glyt1 and/or glyt2

IN Dargazanli, Gihad; Estenne, Bouhtou Genevieve; Marabout, Benoit; Roger, Pierre; Sevrin, Mireille

PA Sanofi-Synthelabo, Fr.

SO Fr. Demande, 32 pp. CODEN: FRXXBL

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LA
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      FR 2842804
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                                                                                  20030725
      EP 1527048
                                       20050504
                               A2
                                                     EP 2003-755635
                                                                                  20030725
               AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
      JP 2005537293
                               Т
                                       20051208
                                                     JP 2004-525473
                                                                                  20030725
      US 2005153963
                               A1
                                       20050714
                                                      US 2005-45247
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PRAI FR 2002-9588
                               Α
                                       20020729
      WO 2003-FR2356
                               W
                                       20030725
      MARPAT 140:146004
os
GΙ
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AΒ Title compds. I [wherein R1 = H, cycloalkylalkyl, alkenyl, alkynyl, (un) substituted alkyl, phenylalkylalkenyl; X = H, halo, CF3, alkyl, alkoxy; R2 = H, halo, OH and derivs., phenyl/alkyl, (CH2)nNR4R5; n = 2-4; R4, R5 = independently H, alkyl; or NR4R5 = pyrrolidinyl, piperidinyl, morpholinyl; as enantiomers (1R,2R) or (1S,2S) or three diastereomers, their pharmaceutical acceptable salts] were prepared as specific inhibitors of glycine transporters glytl and/or glyt2. For example, IIoHCl was prepared by acylation of (1S)-[(2S)-(1-methylpiperidin-2yl)]phenylmethanamine (preparation given) with 2,3-dichlorobenzoic acid in CH2Cl2 in the presence of EDAP/HOBt at room temperature for 5 h, followed by acidulation of the free base II with HCl in 2-propanol. (1S,2S)-I (R2 = halo) and their threo racemates inhibited glycine transport via glyt1 and displayed an IC50 in the range of 0.001 to 10  $\mu M$  in vitro, and a ED50 of 0.1 to 5 mg/kg when administered orally or i.p. in an in vivo test of [14C]glycine uptake in a mouse cortical homogenate. (1R, 2R) - I (R2 = haloor NR3R4 defined as above) and their threo racemates inhibited glycine transport via glyt2 and displayed an IC50 in the range of 0.001 to 10  $\mu M$  in vitro, and a ED50 of 1 to 20 mg/kg when administered orally or i.p. in an in vivo test of [14C]glycine uptake in a mouse spinal homogenate. I are used to treat a variety of central nervous system diseases and conditions (no data).

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:20496 CAPLUS

DN 140:77034

DT

Patent

TI Preparation of substituted 3- and 4-(aminomethyl)piperidines for use as  $\beta$ -secretase inhibitors in the treatment of Alzheimer's disease

IN Boss, Christoph; Bur, Daniel; Fischli, Walter; Jenck, Francois; Weller, Thomas

PA Actelion Pharmaceuticals Ltd, Switz.

SO PCT Int. Appl., 97 pp. CODEN: PIXXD2

DT Patent LA English

FAN.CNT 1

IAN.	PATENT NO.					KIND DATE			APPLICATION NO.					DATE			
PI	WO 20	WO 2004002483			A1 20040108			WO 2003-EP6674						20030625			
	W	: AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW						
	R	W: GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
			KZ,														
		FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	ВJ,	CF,	CG,	Cİ,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
	AU 2003238046				A1		2004	0119	AU 2003-238046								
PRAI	WO 20	02-EP7	101		Α		2002	0627									
	WO 20	03-EP6	674		W		2003	0625									
OS GI	MARPA	т 140:	7703	4													

II

Ι

AB Title compds. I [wherein R1 = (cyclo)alkyl, (cyclo)alkenyl, alkynyl,

heterocyclyl, (hetero)aryl; R2 and R3 = independently H, (cyclo)alkyl, (cyclo)alkenyl, alkynyl, heterocyclyl, (hetero)aryl; R4 = (cyclo)alkyl, cycloalkenylmethyl, heterocyclyl, (hetero)aryl; X = (CH2)nCH2(CH2)j, CO(CH2)p, CO(CH2)pNH(CH2)q, CO(CH2)fO(CH2)p, COCH=CH, SO2(CH2)p, SO2NH(CH2)p, SO2CH=CH; Z = a bond, (CH2)nCH2(CH2)j, CH2CH=CH, (CH2)gNHCO, (CH2)gNHCO2, (CH2)gNHCONH, (CH2)gO(CH2)m; n and j = independently 0-2; m =0-1; n, p, and q = independently 0-4; f = 1-4; g = 2-4; and pure enantiomers, mixts. of enantiomers, pure diastereomers, mixts. of diastereomers, diastereomeric racemates, mixts. of diastereomers racemates, meso-forms, cis- and trans-isomers, and pharmaceutically acceptable salts thereof] were prepared as β-secretase (BACE1) inhibitors. For example, reductive amination of 1-Boc-4aminomethylpiperidine with 4-biphenylcarboxaldehyde, followed by acylation with 4-pentylbenzoyl chloride, deprotection, and reductive amination with phenylacetaldehyde gave II (no data for intermediates). Most of the prepared invention compds. were assayed for enzyme inhibition against the aspartic proteases human  $\beta$ -secretase (BACE1), plasmepsin II, plasmepsin IV, human cathepsin D, human cathepsin E, human renin, and HIV protease and were classified with activity of IC50 < 3  $\mu M$ , 3  $\mu M$  < IC50 < 7  $\mu$ M, or IC50 > 7  $\mu$ M. Thus, I and pharmaceutical compns. containing one or more compds. I are useful for the treatment and prevention of Alzheimer's disease and CNS disorders associated with amyloid deposition in the brain (no data).

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L4 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 2003:837590 CAPLUS

DN 139:337891

TI Preparation of N-[phenyl(piperidin-2-yl)methyl]benzamides as specific inhibitors of glycine transporters glyt1 and/or glyt2

IN Dargazanli, Gihad; Estenne Bouhtou, Genevieve; Magat, Pascale; Marabout, Benoit; Medaisko, Florence; Roger, Pierre; Sevrin, Mireille; Veronique, Corinne

PA Sanofi-Synthelabo, Fr.

SO Fr. Demande, 36 pp. CODEN: FRXXBL

DT Patent

LA French

	PATENT	NO.			KIN	D	DATE		•	APPL	ICAT				D	ATE	
PI	FR 283				A1 B1		2003 2004			FR 2					21	00204	419
	CA 248	1461			A1		2003	1030		CA 2	003-	2481	461		21	00304	417
	WO 200	WO 2003089411				A1 20031030			WO 2003-FR1232						20030417		
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	ΝZ,	OM,
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw					
	RV	7: GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	ΚZ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
					-	-	IE,		-			•	•	-	•	-	•
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
	AU 200						2003										_
	EP 149	9589			A1		2005	0126		EP 2	003-	7406	34		20	2030	417
	R	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑL,	TR,	BG,	CZ,	EE,	HU,	SK	
	BR 200	30093	97		Α		2005	0301		BR 2	003-	9397			20	)03 <b>0</b> /	417
	US 200	51594	50		<b>A</b> 1		2005	0721		US 2	003-	5118	86		20	J0304	417

	CN 1662497	Α	20050831	CN 2003-814006	20030417
	JP 2005527593	T	20050915	JP 2003-586132	20030417
	ZA 2004008154	Α	20051010	ZA 2004-8154	20041008
	NO 2004004388	Α	20050119	NO 2004-4388	20041015
PRAI	FR 2002-4916	Α	20020419		
	WO 2003-FR1232	W	20030417		
os	MARPAT 139:337891				
GT				•	

Title compds. I [wherein R1 = H, cycloalkyl, cycloalkylalkyl, alkenyl, AB alkynyl, (un)substituted alkyl, phenylalkyl; X = H, halo, CF3, alkyl, alkoxy; R2 = H, halo, CF3, alkyl, alkoxy, NR3R4, (un)substituted phenyl; R3, R4 = independently H, alkyl; or NR3R4 = pyrrolidinyl, piperidinyl, morpholinyl; as enantiomers (1R,2R) or (1S,2S) or threo diastereomers, their pharmaceutical acceptable salts and solvates] were prepared as specific inhibitors of glycine transporters glyt1 and/or glyt2. For example, threo-IIoHCl was prepared by acylation of threo-(1ethylpiperidin-2-yl)phenylmethanamine (preparation given) with 2-chloro-3-trifluoromethylbenzoic acid in CH2Cl2 in the presence of EDAP/HOBt at room temperature for 5 h, followed by acidulation of the free base (threo-II) with HCl in 2-propanol. (1S,2S)-I (R2 = halo or CF3) and their threo racemates inhibited glycine transport via glyt1 and displayed an IC50 in the range of 0.0001 to 10  $\mu M$  in vitro, and a ED50 of 0.1 to 5 mg/kg when administered orally or i.p. in an in vivo test of [14C]glycine uptake in a mouse cortical homogenate. (1R,2R)-I (R2 = halo or NR3R4 defined as above) and their threo racemates inhibited glycine transport via glyt2 and displayed an IC50 in the range of 0.0001 to 10  $\mu M$  in vitro, and a ED50 of 1 to 20 mg/kg when administered orally or i.p. in an in vivo test of [14C]qlycine uptake in a mouse spinal homogenate. I are used to treat a variety of central nervous system diseases and conditions (no data).

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L4 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
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KTND

AN 2002:849607 CAPLUS

DN 137:353007

TI Preparation of  $\beta$ -carbolines and other inhibitors of BACE-1 aspartic proteinase useful against Alzheimer's and other BACE-mediated diseases

IN Bhisetti, Govinda R.; Saunders, Jeffrey O.; Murcko, Mark A.; Lepre, Christopher A.; Britt, Shawn D.; Come, Jon H.; Deninger, David D.; Wang, Tianshang

PA Vertex Pharmaceuticals Incorporated, USA

SO PCT Int. Appl., 208 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1,

	1111	T 1714 T	110.			1/11/		חדעם		-	п. г. ш.	ICAI	TOI			D	LT E	
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ΡI	WO	2002	0881	01		A2		2002	1107	1	WO 2	002-	US13	741		20	00204	429
	WO 2002088101				A3	A3 20030103												
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,

APPLICATION NO

DATE

DATE

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UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
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             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2002256418
                          Α1
                                 20021111
                                             AU 2002-256418
                                                                     20020429
     US 2003095958
                                             US 2002-136576
                          A1
                                20030522
                                                                     20020429
     EP 1389194
                          A2
                                 20040218
                                             EP 2002-725881
                                                                     20020429
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     JP 2004534017
                          Т
                                20041111
                                             JP 2002-585403
                                                                     20020429
PRAI US 2001-287169P
                          Ρ
                                20010427
     US 2001-301049P
                          Ρ
                                20010626
     US 2001-342263P
                          Ρ
                                20011218
    WO 2002-US13741
                          W
                                20020429
    MARPAT 137:353007
os
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AB The present invention relates to a wide variety of inhibitors (e.g. naphthalene-1-carboxylic acid N-[2-(3,4-dichlorophenyl)-4-(piperazin-1yl)pyrimidin-5-yl]amide; 9-[(naphthalen-2-yl)methyl]-6-[(3trifluoromethylbenzyl)oxy]-2,3,4,9-tetrahydro-1H-β-carboline; 4-(biphenyl-4-yl)piperidine-3-carboxylic acid N-(1-(naphthalen-2yl)ethyl)amide) of aspartic proteinases, particularly, BACE. The present invention also relates to compns. thereof and methods therewith for inhibiting BACE activity in a mammal, and for treating Alzheimer's Disease and other BACE-mediated diseases. The inhibitors have the following structural features: HB-1, HPB-4; and at least one of HPB-2 and HPB-3, wherein: HB-1 is a 1st H bonding moiety capable of forming up to four H bonds with the carboxylate O atoms of Asp-228 and Asp-32 of BACE-1; HPB-2 is a 2nd hydrophobic moiety capable of associating with substantially all residues in the flap binding pocket; HPB-3 is a 3rd hydrophobic moiety capable of associating with substantially all residues in the P2' binding pocket; HPB-4 is a 4th hydrophobic moiety capable of inducing favorable interactions with the Ph ring of at least two of Tyr-71, Phe-108 and Trp-76. In I (e.g. [6-(2-difluoromethoxybenzyloxy)-1,2,3,4-tetrahydro- $\beta$ -carbolin-9-yl]naphthalen-1-ylmethanone), one set of the claimed compds., A is a five or six membered aryl ring having 0-2 heteroatoms independently selected from N, O or S, wherein: A has at least one R10 substituent and up to three more substituents selected from R10 or J; k is 0 or 1; n is 0-2; J is halogen, -R', -OR', -NO2, -CN, -CF3, -OCF3, oxo, 1,2-methylenedioxy, -N(R')2, -SR', -S(0)R', -S(0)N(R')2, -SO2R', -C(0)R', -CO2R', -C(0)N(R')2, -N(R')C(0)R', -N(R')C(0)OR', -N(R')C(0)N(R')2, or -OC(O)N(R')2, wherein R' is H, aliphatic, heterocyclyl, heterocyclyl-alkyl, aryl, aralkyl, heteroaryl, or heteroaralkyl; wherein R' is optionally substituted with up to 3 substituents selected independently from -R11, -OR11, -NO2, -CN, -CF3, -OCF3, oxo, 1,2-methylenedioxy, -N(R11)2, -SR11, -S(0)R11, -S(0)N(R11)2, -S02R11, -C(0)R11, -C02R11, -C(0)N(R11)2, -N(R11)C(0)R', -N(R11)C(0)OR11, -N(R11)C(0)N(R11)2, or -OC(0)N(R11)2. is H, (C1-C6)-alkyl, (C2-C6)-alkenyl or alkynyl, or (C3-C6)cycloalkyl; R10 is P1-R1-P2-R2-W; P1 and P2 each are independently: absent or aliphatic; R1 and R2 each are independently: absent or R; R is a suitable linker; W is a

five to eleven membered monocyclic or bicyclic, aromatic or nonarom. ring having zero to three heteroatoms independently selected from O, S, N, or NH, wherein W has up to 3 substituents independently selected from J. Ranges of Ki values (>30, 3-30 and <3  $\mu\text{M})$  for inhibition of BACE-1 are tabulated for .apprx.500 compds. Although the methods of preparation are not claimed, 30 example prepns. are included.

- L4 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1996:531765 CAPLUS
- DN 125:247551
- TI Asymmetric Synthesis. 39.1 Synthesis of 2-(1-Aminoalkyl)piperidines via 2-Cyano-6-phenyl Oxazolopiperidine
- AU Froelich, Olivier; Desos, Patrice; Bonin, Martine; Quirion, Jean-Charles; Husson, Henri-Philippe; Zhu, Jieping
- CS Faculte des Sciences Pharmaceutiques et Biologiques, Universite Rene Descartes, Paris, 75270, Fr.
- SO Journal of Organic Chemistry (1996), 61(19), 6700-6705 CODEN: JOCEAH; ISSN: 0022-3263
- PB American Chemical Society
- DT Journal
- LA English

GI

AB The asym. synthesis of a series of 2-piperidinealkanamines starting from (-)-2-cyano-6-phenyloxazolopiperidine was [i.e., [3R-(3α,5β,8aβ)]-hexahydro-3-phenyl-5H-oxazolo[3,2-a]pyridine-5-carbonitrile] (I) as described. LiAlH4 reduction of I followed by hydrogenolysis gave (-)-2-piperidinemethanamine dihydrochloride (II). Addition of lithium derivs. to the cyano group of I resulted in the formation of intermediate imino bicyclic systems which could be diastereoselectively reduced to substituted diamino alcs. The addition of an excess of PhLi to I in the presence of LiBr gave a disubstituted amine, the precursor of diphenyl[(2S)-piperidin-2-yl]methanamine.

- L4 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1979:168416 CAPLUS
- DN 90:168416
- TI Synthesis and neurotropic properties of some  $\alpha\text{-aminobenzyl}$  piperidines
- AU Orlova, E. K.; Bulaev, V. M.; El'kin, A. I.; Meshcheryakova, L. M.; Zagorevskii, V. A.
- CS Inst. Farm., Moscow, USSR
- SO Khimiko-Farmatsevticheskii Zhurnal (1979), 13(1), 47-51 CODEN: KHFZAN; ISSN: 0023-1134
- DT Journal
- LA Russian
- OS CASREACT 90:168416

GI

AB Reduction of the pyridinium oxime salt I, prepared in 64% yield by reaction of 3-benzoylpyridine oxime with PhSO3Me, with KBH4 in HOAc gave 54% tetrahydropyridine II. Hydrogenation of II over Raney Ni gave a mixture of diastereoisomers III (R = H), which were acylated to give III (R = Ac, EtCO, EtO2C, Bz, pyridylcarbonyl). In some cases only one isomer was prepared and in others both were prepared III (R = benzyl, PhCH:CHCH2) were prepared by reaction of III (R = H) with PhCHO or PhCH:CHCHO, followed by reduction of the Schiff bases. The effect of the prepared compds. on the central nervous system was tested. One isomer of III (R = H, EtCO, benzyl) at doses of 112, 75 and 72 mg/kg in mice had weak central nervous system depressant activity. The prepared compds. at 10-50 mg/kg did not have analgesic activity. One of the isomers of III (R = H) had the greatest antimorphine effect.

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=> s (glycine(1)transport?)(1)(psychoses or schizophrenia or dementia)
        153549 GLYCINE
        808087 TRANSPORT?
          1035 PSYCHOSES
         16102 SCHIZOPHRENIA
         13240 DEMENTIA
           122 (GLYCINE (L) TRANSPORT?) (L) (PSYCHOSES OR SCHIZOPHRENIA OR DEMENTIA
L1
=> s l1 and py<2001
      20884436 PY<2001
            11 L1 AND PY<2001
L<sub>2</sub>
=> d bib hit 1-11
     ANSWER 1 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
L2
AN
     2000:753496 CAPLUS
DN
     134:320356
     N-methyl-D-aspartate (NMDA) receptor-based treatment approaches in
ΤI
     schizophrenia: The first decade
     Heresco-Levy, Uriel
ΑU
     Ezrath Nashim-Herzog Memorial Hospital, Department of Psychiatry, Hadassah
CS
     Medical School, Hebrew University, Jerusalem, 91351, Israel
SO
     International Journal of Neuropsychopharmacology (2000), 3(3),
     243-258
     CODEN: IJNUFB; ISSN: 1461-1457
PB
     Cambridge University Press
     Journal; General Review
DT
     English
LΑ
RE.CNT 124
              THERE ARE 124 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
SO
     International Journal of Neuropsychopharmacology (2000), 3(3),
     CODEN: IJNUFB: ISSN: 1461-1457
AB
     A review with many refs. The study of excitatory amino acids (EAA) [e.g. .
     glutamate (Glu), aspartate] as neurotransmitters has resulted in many new
     and fundamental concepts in neuroscience. Much of this progress centers
     upon the role of N-methyl-D-aspartate (NMDA) subtype of Glu receptors in
     central nervous system synaptic transmission and plasticity. A leading
     hypothesis suggests that deficits in NMDA receptor-mediated
     neurotransmission may be central to the pathophysiol. of
     schizophrenia. The conceptual foundation of this hypothesis
     derives from the clin. effects of NMDA receptor antagonists, such as
     phencyclidine (PCP) and ketamine and from postmortem findings in brain
     samples of schizophrenia patients. Consequently, at present
     there is an intense search for pharmacol. strategies capable of
     facilitating NMDA receptor function in this illness. During the last
     decade, a first generation of small clin. studies has focused on assessing
     the therapeutic potential of glycine-(Gly) site agonists of the
     NMDA receptor, such as Gly, D-serine and D-cycloserine. The results of
     these studies indicate that this type of compound may reduce neg. symptoms
     and executive cognitive deficits in schizophrenia patients.
     Furthermore, preliminary findings suggest that patients having low serum
     Gly levels may represent the population of choice for treatment with
     Gly-site agonists. Addnl. potential schizophrenia treatments
     that may affect mainly NMDA receptor neurotransmission are: (i) other full
     and partial Gly-site agonists - in course of development for clin. use,
     and (ii) Gly transport antagonists that can inhibit Gly reuptake
     from neuronal synapses. Moreover, the antipsychotic action of some
     typical and atypical neuroleptics may be mediated by their agonistic
     activity at the strychnine-insensitive NMDA receptor-associated Gly site.
     After decades of relative neglect, the role of glutamatergic
     neurotransmission in the pathophysiol. and therapeutics of
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schizophrenia is presently in process of conceptualization. In this context, it is likely that the development of NMDA receptor-based approaches for the treatment of this illness will continue. This trend is already supported by available clin. findings with Gly-site agonists and may herald an important, innovative development in the pharmacol. treatment of neuropsychiatric syndromes.

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ANSWER 2 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
L2
AN
     1999:576930 CAPLUS
     131:199712
DN
    Preparation of heterocyclic compounds as glycine transport inhibitors
TI
    Luyten, Walter Herman Maria Louis; Janssens, Frans Eduard; Kennis, Ludo
IN
     Edmond Josephine
PΑ
     Janssen Pharmaceutica N.V., Belg.
SO
     PCT Int. Appl., 30 pp.
     CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
     PATENT NO.
                       KIND
                              DATE
                                        APPLICATION NO.
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                                         -----
                                                                -----
    WO 9945011
                        A1
                               19990910
                                        WO 1999-EP1308
                                                                19990226 <--
ΡI
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AB
    The present invention is concerned with the use of glycine
    transport inhibiting \alpha, \alpha-diphenyl-1-
    piperidinebutanamides for the preparation of medicaments, title compds. I (R1,
    R2, = H, alkyl; X = CR4R5; R4 = H, OH, etc.; R5 = diarylmethyloxyalkyl,
    etc) for treating disorders of the central and peripheral nervous system,
    in particular psychoses, pain, epilepsy, neurodegenerative
    diseases (Alzheimer's disease), stroke, head trauma, multiple sclerosis
    and the like. The title compound II was prepared Formulations are given.
    invention further comprises novel compds., their preparation and their
    pharmaceutical forms. The bioactivity of II was demonstrated.
    ANSWER 3 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
L2
    1999:576769 CAPLUS
AN
DN
    131:219171
    Glycine transport inhibitors
TI
IN
    Luyten, Walter Herman Maria Louis; Janssens, Frans Eduard; Kennis, Ludo
    Edmond Josephine
PA
    Janssen Pharmaceutica N.V., Belg.
    PCT Int. Appl., 20 pp.
SO
    CODEN: PIXXD2
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    English
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     The present invention is concerned with the use of glycine
     transport inhibiting [4,4-bis(4-fluorophenyl)butyl]-1-(piperazinyl
     and piperidinyl) derivs. for the preparation of medicaments for treating
     disorders of the central and peripheral nervous system, in particular
     psychoses, pain, epilepsy, neurodegenerative diseases (Alzheimer's
     disease), stroke, head trauma, multiple sclerosis and the like. E.g.,
     3-[1-[4,4-bis(4-fluorophenyl)butyl]-4-piperidinyl]-3,4-dihydro-2(1H)-
     quinazolinone was prepared as were a number of other derivs. The compds. were
     assayed for transport via GlyT1 transporters.
     Film-coated tablets were also prepared
    ANSWER 4 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
     1999:221571 CAPLUS
     131:67958
    Reversal of phencyclidine-induced effects by glycine and glycine transport
     Javitt, Daniel C.; Balla, Andrea; Sershen, Henry; Lajtha, Abel
     Program in Cognitive Neuroscience and Schizophrenia, Nathan S. Kline
     Institute for Psychiatric Research, Orangeburg, NY, 10962, USA
     Biological Psychiatry (1999), 45(6), 668-679
     CODEN: BIPCBF; ISSN: 0006-3223
     Elsevier Science Inc.
     Journal
     English
RE.CNT
      94
              THERE ARE 94 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
    Biological Psychiatry (1999), 45(6), 668-679
     CODEN: BIPCBF; ISSN: 0006-3223
    Phencycline (PCP, "angel dust") and other noncompetitive antagonists of
    N-methyl-D-aspartate (NMDA)-type glutamatergic neurotransmission induce
    psychotic effects in humans that closely resemble pos., neq., and
     cognitive symptoms of schizophrenia. Behavioral effects of PCP
     in rodents are reversed by glycine (GLY) and other NMDA
     augmenting agents. In rodents, behavioral effects of PCP are mediated, in
    part, by secondary dysregulation of subcortical dopaminergic
    neurotransmission. This study evaluates effects of GLY and GLY
     transport antagonists on behavioral and neurochem. consequences of
    PCP administration in rodents. Two sep. expts. were performed.
     first, effects of GLY on PCP-induced stimulation of dopaminergic
    neurotransmission in nucleus accumbens were evaluated using in vivo
    microdialysis in awake animals. In the second, effects of a series of GLY
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transport antagonists were evaluated for potency in inhibiting

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PCP-induced hyperactivity. In microdialysis studies, GLY significantly inhibited PCP-induced stimulation of subcortical DA release in a dose-dependent fashion. In behavioral studies, the potency of a series of GLY transport antagonists for inhibiting PCP-induced hyperactivity in vivo correlated significantly with their potency in antagonizing GLY transport in vitro. These findings suggest, first, that GLY reverses not only the behavioral, but also the neurochem., effects of PCP in rodents. Second, the findings suggest that GLY transport antagonists may induce similar effects to GLY, and may therefore represent an appropriate site for targeted drug development.

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L2 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
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- AN 1999:169601 CAPLUS
- DN 131:13198
- TI Glutamate in CNS disorders as a target for drug development: an update
- AU Parsons, Chris G.; Danysz, Wojciech; Quack, Gunter
- CS Merz + Co., Frankfurt, Germany
- SO Drug News & Perspectives (1998), 11(9), 523-569 CODEN: DNPEED; ISSN: 0214-0934
- PB Prous Science
- DT Journal; General Review
- LA English
- RE.CNT 782 THERE ARE 782 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- SO Drug News & Perspectives (1998), 11(9), 523-569 CODEN: DNPEED; ISSN: 0214-0934
- The authors provide an extensive review, with 783 refs., of new data AB related to the role of glutamate in CNS disorders, describing new aspects in glutamate and glutamatergic receptors-NMDA receptors, NR2B-selective antagonists, non-NMDA ionotropic glutamate receptors, Nacetylaspartylglutamate, and glutamate and glycine transporters. New findings in animal models and in human diseases - stroke, traumatic brain injury, Alzheimer's, Parkinson's and Huntington's diseases, tardive dyskinesia, ALS, olivopontocerebellar degeneration, AIDS, allergic encephalomyelitis, epilepsy, anxiety, depression, schizophrenia, liver disease, aminoglycoside antibiotic-induced hearing loss, hemiplegia, chronic pain and drug tolerance and abuse-are presented. Finally, the authors cite the progress achieved in the development of agents that interact with the glutamatergic system: NMDA channel blockers, competitive NMDA receptor antagonists, NR2B-selective antagonists, glutamate release inhibitors, glycineB antagonists, AMPA and kainate receptor antagonists, AMPA receptor-pos. modulators and agents that act by modifying endogenous kynurenic acid metabolism
- L2 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1998:752230 CAPLUS
- DN 130:10647
- TI Treatment of negative and cognitive symptoms of schizophrenia with glycine uptake antagonists
- IN Javitt, Daniel C.
- PA USA
- SO U.S., 25 pp. CODEN: USXXAM
- DT Patent
- LA English
- FAN. CNT 1

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PRAI	US 1996-759681		19961206		

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

PI US 5837730 A 19981117

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    Transport proteins
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       antagonists and glycine in relation to use with other
       antipsychotics)
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AN
    1998:708835 CAPLUS
DN
    129:312470
ΤI
    human glycine transporter cDNA sequence and therapeutic applications for
    nervous system disorders
IN
    Albert, Vivian R.; Kowalski, Leslie R. Z.
PA
    Allelix Neuroscience Inc., USA
SO
    PCT Int. Appl., 46 pp.
    CODEN: PIXXD2
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JP 2001521388 T 20011106 JP 1998-544092 19980413

US 1999-396177

19990914

IT Alzheimer's disease

Epilepsy

US 6251617

Schizophrenia

(therapy for; human glycine transporter cDNA sequence and therapeutic applications for nervous system disorders)

20010626

L2 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

B1

- AN 1998:448883 CAPLUS
- DN 129:187933
- TI Neurochemical alterations in the cerebellum of a murine model of Niemann-Pick type C disease
- AU Yadid, Gal; Sotnik-Barkai, Iris; Tornatore, Carlo; Baker-Cairns, Belinda; Harvey-White, Judith; Pentchev, Peter G.; Goldin, Ehud
- CS Department of Life Sciences, Bar Ilan University, Ramat Gan, 52900, Israel
- SO Brain Research (1998), 799(2), 250-256 CODEN: BRREAP; ISSN: 0006-8993
- PB Elsevier Science B.V.
- DT Journal
- LA English
- RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- SO Brain Research (1998), 799(2), 250-256 CODEN: BRREAP; ISSN: 0006-8993
- Niemann-Pick disease Type C (NPC) is a progressive neurovisceral metabolic AB disorder that is caused in most patients by a defect in a recently found gene, NPC-1. Neurol. damage includes visual disorders such as vertical supranuclear gaze palsy, movement disorders such as dystonia and ataxia, dementia, and seizures. So far the biochem. deficit, most likely manifested by delayed intracellular cholesterol transport, has not been correlated with the progressive neurol. damage. A mutant Balb/C mouse with a defect in the same gene is used as a model to study NPC. Pathol. examination of brain tissue obtained by autopsy from NPC patients or brains of affected NPC mice of different ages, revealed signs of extensive damage throughout the brain, including neurofibrillary tangles and intracellular storage of various compds. Loss of cerebellar Purkinje cells was the most significant specific damage. The present study examined whether the neurochem. changes present in the NPC mouse brain were related to the pathol. changes. The results show major alterations in the levels of serotonin and its main metabolite, 5-hydroxyindoleacetic acid, in the cerebellum and cortex of NPC mice. The levels of the inhibitory amino acid glycine were threefold higher in the cerebellum of NPC mice and those of glutamate and GABA decreased in the cortex. Tyrosine hydroxylase immunoreactivity was present in Purkinje cells, and the levels of 1-DOPA increased specifically in the vermis of the cerebellum. These results are the first to indicate changes in neurotransmitters in NPC and that these could be correlated with some of the neuropathol. of this disease.
- L2 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1997:805755 CAPLUS
- DN 128:70786
- TI Glycine transporter-transfected cells and uses thereof
- IN Ognyanov, Vassil Iliya; Borden, Laurence; Bell, Stanley Charles; Zhang, Jing
- PA Trophix Pharmaceuticals, Inc., USA
- SO PCT Int. Appl., 80 pp. CODEN: PIXXD2
- DT Patent
- LA English

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IT
    AIDS (disease)
    AIDS (disease)
        (AIDS dementia complex, screening of drugs for;
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       and uses thereof)
IT Mental disorder
    Mental disorder
        (AIDS dementia, screening of drugs for; glycine
       transporter-transfected nervous system cells and uses thereof)
    Mental disorder
IT
        (dementia, multi-infarct, screening of drugs for;
       glycine transporter-transfected nervous system cells
       and uses thereof)
IT
    Alzheimer's disease
    Multiple sclerosis
      Schizophrenia
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(screening of drugs for; glycine transporter
-transfected nervous system cells and uses thereof)

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L2
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    1993:464000 CAPLUS
AN
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    Mammalian glycine transporter cDNA and its use in modulating transporter
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    gene expression and in identifying transport-modifying drugs
    Smith, Kelli; Borden, Laurence A.; Branchek, Theresa; Hartig, Paul R.;
IN
    Weinshank, Richard L.
    Synaptic Pharmaceutical Corp., USA
PA
so
    PCT Int. Appl., 124 pp.
    CODEN: PIXXD2
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AB
    The cDNAs for rat and human glycine transporter are
    cloned and sequenced. Antisense oligonucleotides derived from this cDNA
    can be used to modulate expression of the transporter gene,
    while sense oligonucleotides are useful in detecting expression of the
    gene (by identifying transporter mRNA). Cells expressing this
    cDNA can be used to identify compds. which influence the function of the
    transporter. These potential drugs could be used to treat
    disorders/diseases such as epilepsy and schizophrenia. The rat
    glycine transporter cDNA was expressed in COS-7 cells
    and its pharmacol. properties were determined
IT
    Schizophrenia
       (treatment of, anti-glycine transporter antibody or
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L2
    ANSWER 11 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
AN
    1988:35852 CAPLUS
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    108:35852
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    Decreased tyrosine transport in fibroblasts from schizophrenic patients
AU
    Hagenfeldt, L.; Venizelos, N.; Bjerkenstedt, L.; Wiesel, F. A.
CS
    Karolinska Inst., Karolinska Hosp., Stockholm, S-104 01, Swed.
so
    Life Sciences (1987), 41(25), 2749-57
    CODEN: LIFSAK; ISSN: 0024-3205
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DT

Journal

- LA English
- SO Life Sciences (1987), 41(25), 2749-57 CODEN: LIFSAK; ISSN: 0024-3205
- Amino acid transport was studied in vitro in cultured fibroblasts from schizophrenic patients and controls. An isolated decrease in the transport capacity (Vmax) for tyrosine was observed in cells from the patients. The Km for tyrosine transport was unaffected. The kinetic parameters for phenylalanine, tryptophan, leucine, and glycine transport did not differ between patients and controls. Competitive inhibition among the amino acids transported by the L-system and its exchange properties were normal in cells from the patients. No differences in intracellular levels of amino acids between patients and controls were observed. The decreased tyrosine transport in the cells from schizophrenic patients appears not to be related to any known amino acid transport system and may reflect a more general defect in plasma membrane function in schizophrenia.